

Appln No. 09/825,903

Amdt date January 13, 2005

Reply to Office action of September 28, 2004

**Amendments to the Abstract:**

Regarding the Abstract of the Disclosure, please replace the current Abstract of the Disclosure with the Abstract of the Disclosure provided on a separate sheet in the appendix hereto. The present Abstract of the Disclosure has been amended as follows:

~~METHOD OF DETERMINING A START OF A TRANSMITTED FRAME IN A  
FRAME BASED COMMUNICATIONS NETWORK~~  
ABSTRACT IF THE DISCLOSURE

A method of determining a start of a transmitted frame at a receiver on a frame-based communications network. ~~A preamble format for the transmitted frame is provided wherein a plurality of identical copies of a preamble symbol sequence are transmitted sequentially.~~ A received transmitted frame is filtered using filter coefficients matched to ~~[[the]]~~ a preamble symbol sequence to provide a correlation sequence. ~~A squared magnitude of the correlation sequence is computed.~~ The ~~squared magnitude of the correlation sequence is low-pass filtered and~~ delayed to provide a delayed low-pass filtered correlation signal ~~low pass filtered signal.~~ The ~~low pass filtered correlation signal is delayed to provide a delayed low pass filtered correlation signal.~~ The ~~delayed low pass filtered correlation signal is multiplied by a first fixed predetermined threshold to provide a multiplied correlation signal.~~ The multiplied delayed low-pass filtered correlation signal is compared with the low-pass filtered correlation signal and a fixed predetermined threshold to provide a correlation difference indicator. Energy of the received transmitted frame is detected and the energy is low-pass filtered to provide a low-pass filtered energy signal ~~comparing detected energy to a fixed energy threshold to provide a threshold compared energy~~

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signal. ~~The low-pass filtered energy signal is multiplied by a second fixed predetermined threshold to provide a multiplied energy signal.~~ The ~~threshold-compared~~ low-pass filtered correlation signal is compared with the ~~threshold-compared multiplied~~ low-pass filtered energy signal to provide a correlation peak indicator. A logical-AND of the correlation difference indicator and the correlation peak indicator is formed to determine a match/no match comparison indicative of the start of a transmitted frame.

## ABSTRACT OF THE DISCLOSURE

A method of determining a start of a transmitted frame at a receiver on a frame-based communications network. A received transmitted frame is filtered using filter coefficients matched  
5 to a preamble symbol sequence to provide a correlation sequence. The correlation sequence is low-pass filtered and delayed to provide a delayed low-pass filtered correlation signal. The delayed low-pass filtered correlation signal is compared with the low-pass filtered correlation signal and a fixed  
10 predetermined threshold to provide a correlation difference indicator. Energy of the received transmitted frame is detected and the energy is low-pass filtered to provide a low-pass filtered energy signal. The low-pass filtered correlation signal is compared with the low-pass filtered energy signal to provide  
15 a correlation peak indicator. A logical-AND of the correlation difference indicator and the correlation peak indicator is formed to determine a match/no match comparison indicative of the start of a transmitted frame.

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